

## **REMARKS**

Reconsideration and withdrawal of the rejections of this application and consideration and entry of this paper are respectfully requested in view of the herein remarks, which place the application in condition for allowance.

### **I. STATUS OF CLAIMS AND FORMAL MATTERS**

Claims 1-19 are pending in this application. Applicants reserve the right to pursue the subject matter of cancelled claims in continuing applications. No new matter has been added by this amendment.

It is submitted that the claims, herewith and as originally presented, are patentably distinct over the prior art cited in the Office Action, and that these claims were in full compliance with the requirements of 35 U.S.C. § 112. The amendments of the claims, as presented herein, are not made for purposes of patentability within the meaning of 35 U.S.C. §§§§ 101, 102, 103 or 112. Rather, these amendments and additions are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

### **II. THE 35 U.S.C. 103(a) REJECTION HAS BEEN OVERCOME**

Claims 1-19 were rejected as allegedly being obvious over Rösch et al. (U.S. Patent 5,703,008 - "Rösch") in view of Saunders et al. (WO 99/08520 - "Saunders"). Reconsideration is respectfully requested.

At the outset it is unclear what was intended by the Examiner's preliminary statement on page 2 of his Office Action that "(B) mefenpyr (diethyl ester in claim 2, or other derivatives thereof, claim 1). No data has been provided for the mefenpyr compositions." As the Examiner appears to be referring to mefenpyr generically, i.e. as also describing derivatives such as ethyl esters, this statement is not understood in light of the description on page 22 of the specification lines 15-19 which disclose the definitions for (A4) - clethodim; (A5) - cycloxydim; (A6) - sethoxydim; (A7) - tepraloxym and (B1) - mefenpyr-diethyl and the data provided in Examples 1-5 each tested compositions containing mefenpyr-diethyl.

Mefenpyr-diethyl is encompassed by claim 1 wherein for the compound of formula (I),  $R^1$  is Cl;  $n = 2$ ;  $R^2 = CH_2CH_3$ ;  $R^3 = CH_3$ ; and  $R^4 = CH_2CH_3$  and is specifically recited in claims 4, 11 and 16.

Turning our attention to the rejection itself, the Rösch reference merely indicates that the safeners of (B) in the present claims were previously known. The Saunders reference indicates

that certain “oxydim” herbicides were known (i.e., tralkoxydim and butroxydim) but when considering this reference as a whole, it is clear that the inventive concept is that the combination of tralkoxydim and butyroxymdim led to unexpected results (see Table I and page 11, lines 1-5 of the Saunders reference) not the addition of a safener. When one of ordinary skill in the art consider the Saunders reference, the artisan does not have the benefit of the applicants’ claim before him as does the Examiner and there would be no suggestion to that artisan that the addition of a safener to an oxydim herbicides causes unexpected results in terms of decreasing toxicity on desired crops while increasing toxicity on undesired weeds.

As such, the combination of Rösch and Saunders would merely suggest that certain safeners and oxydim herbicides were known in the art. Consideration of Rösch as a whole would lead one of ordinary skill in the art to the safeners disclosed and consideration of Saunders as a whole would lead one of ordinary skill in the art to combine oxydim herbicides. However, there was no teaching, motivation or suggestion to combine them in the manner claimed by the applicants nor any expectation to achieve the results presented by the applicants. The Examiner’s motivation to combine the references appear to come from his own opinion and relies on obvious to try rationale rather than a finding of fact or evidence which is proffered from the cited references.

Moreover, the Saunders reference, rather than supporting the Examiner’s position that it would be obvious to try combining the components actually teaches away from the Examiner’ position, i.e. there is no expectation of success for the Examiner’s intended combination. Saunders specifically taught the use of a different safener (fenchlorazole-ethyl - which is NOT encompassed by the applicants claims) with their combination of oxydim herbicides - see Table 1, col. 10 and table below.

| oxydim-oxydim combination                     | Damage to wheat |              | Damage to barley |              |
|---|-----------------|--------------|------------------|--------------|
|   | No safener      | With safener | No safener       | With safener |
| Tralkoydim (12.5 g/ha)<br>Butroxydim (1 g/ha) | 11%             | 13%          | 8%               | 12%          |
| Tralkoydim (25 g/ha)<br>Butroxydim (1 g/ha)   | 12%             | 11%          | 9%               | 11%          |
| Tralkoydim (6.25 g/ha)<br>Butroxydim (2 g/ha) | 16%             | 14%          | 13%              | 8%           |
| Tralkoydim (12.5 g/ha)<br>Butroxydim (2 g/ha) | 18%             | 18%          | 17%              | 18%          |
| Tralkoydim (25 g/ha)<br>Butroxydim (2 g/ha)   | 19%             | 18%          | 18%              | 17%          |

As can be seen from the chart above, the damage to wheat and/or barley crops from oxydim-oxydim-safener combinations were worse than oxydim-oxydim combinations or showed negligible improvement. With regard to effectiveness against weeds, of the sixty examples which utilized fenchlorazole-ethyl as safener, only two examples showed improved effects against weeds. Given this spotty record of effectiveness with regard to the addition of safeners, one of ordinary skill in the art would not have expected the improvement shown by the structurally different safeners which are part of the applicants' claimed invention.

In addition, considerations of obviousness under the guidelines set forth in *Graham v. Deere*, requires that evidence of secondary considerations (e.g. unexpected results) are considered. Although not necessary in light of the expectation in the art that safeners would have no effect or a deleterious effect on desired crops, the data provided in the specification amply supports a holding of unexpected results.

As previously noted, Examples 1-4 (Tables 2-5) show various combinations of an oxydim herbicides with a representative example of safener B), i.e. mefenpyr ethyl. The results from these tables are illustrated below:

Table 2: The combination of A6 (sethoxydim) and B1 (mefenpyr ethyl) resulted in a 50% (14%/28% x 100%) decrease in toxicity for TRZAW (winter wheat) while increasing toxicity 23.6% (13%/55% x 100%) against *Phalaris minor* and 7.1% against *Alopecurus myosuroides* at application rate of 72 g a.i./ha (sethoxydim) + 45 g a.i./ha (mefenpyr ethyl).

The combination of A6 (sethoxydim) and B1 (mefenpyr ethyl) resulted in a 46.4% (14%/28% x 100%) decrease in toxicity for TRZAW (winter wheat) while increasing toxicity 9.1% (5%/55% x 100%) against *Phalaris minor* and 18.6% (13%/70% x 100%) against *Alopecurus myosuroides* at application rate of 72 g a.i./ha (sethoxydim) + 11 g a.i./ha (mefenpyr ethyl).

Table 3: The combination of A4 (clethodim) and B1 (mefenpyr ethyl) resulted in a 94.1% (48%/51% x 100%) decrease in toxicity for HORVS (summer barley) and 75% (24%/32% x 100%) for TRZDU (durum wheat) at application rate of 7.5 g a.i./ha (clethodim) + 100 g a.i./ha (mefenpyr ethyl).

The combination of A4 (clethodim) and B1 (mefenpyr ethyl) resulted in a 85.1% (57%/67% x 100%) decrease in toxicity for HORVS (summer barley) and 64.3% (36%/56% x 100%) for TRZDU (durum wheat) at application rate of 15 g a/i/ha (clethodim) + 100 g a/i/ha (mefenpyr ethyl).

Table 4: The combination of A4 (clethodim) and B1/fenoxaprop-P-ethyl (mefenpyr ethyl/fenoxaprop-P-ethyl) resulted in a 70.6% (36%/51% x 100%) decrease in toxicity for HORVS (summer barley) and 71.9% (23%/32% x 100%) for TRZDU (durum wheat) at application rate of 7.5 g a/i/ha (clethodim) + 25 g a/i/ha (mefenpyr ethyl) + 92 g a/i/ha (fenoxaprop-P-ethyl).

Table 5: The combination of A7 (tepraloxydim) and B1 (mefenpyr ethyl) resulted in a 76.9% (60%/78% x 100%) decrease in toxicity for HORVS (summer barley) and 85.7% (60%/70% x 100%) for TRZDU (durum wheat) at application rate of 8.25 g a/i/ha (tepraloxydim) + 100 g a/i/ha (mefenpyr ethyl).

The combination of A7 (tepraloxydim) and B1/fenoxaprop-P-ethyl (mefenpyr ethyl/fenoxaprop-P-ethyl) resulted in a 78.2% (61%/78% x 100%) decrease in toxicity for HORVS (summer barley) and 77.1% (54%/70% x 100%) for TRZDU (durum wheat) at application rate of 8.25 g a/i/ha (tepraloxydim) + 25 g a/i/ha (mefenpyr ethyl) + 92 g a/i/ha (fenoxaprop-P-ethyl).

The data presented in the specification amply support the applicants' claim for unexpected results for the full scope of the compositions claimed and therefore, the obviousness rejection should be withdrawn.

#### **REQUEST FOR INTERVIEW**

In the interest of adhering to the tenets of compact prosecution and obtaining good customer service (see page 7 of the FY-2004 Performance and Accountability Report), the applicants request that the teachings of MPEP 707.07(j), sections II and III be applied, especially with regard to the offer of suggestion for correction by the Examiner if the rejections are upheld.

In accordance with MPEP 713.01, section III, should any issue remain as an impediment to allowance, an interview with the Examiner and SPE are respectfully requested; and, the Examiner is additionally requested to contact the undersigned to arrange a mutually convenient time and manner for such an interview ("An interview should normally be arranged for in advance, as by letter, facsimile, electronic mail, telegram or telephone call, in order to insure that the primary examiner and/or the examiner in charge of the application will be present in the office." *Id.*).

**CONCLUSION**

In view of the remarks and amendments herewith, the application is believed to be in condition for allowance. Favorable reconsideration of the application and prompt issuance of a Notice of Allowance are earnestly solicited. The undersigned looks forward to hearing favorably from the Examiner at an early date, and, the Examiner is invited to telephonically contact the undersigned to advance prosecution. The Commission is authorized to charge any fee occasioned by this paper, or credit any overpayment of such fees, to Deposit Account No. 50-0320.

Respectfully submitted,  
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